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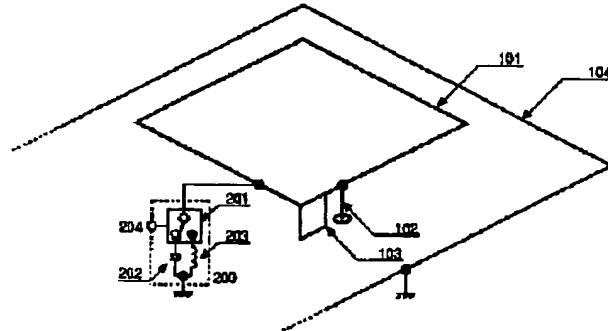
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TITLE : PLANAR ANTENNA



ABSTRACT : PROBLEM TO BE SOLVED: To perform an operation without lowering the gain even in a wide band or plural bands by adding a load impedance to an antenna element and discretely or continuously controlling the value.

SOLUTION: A load impedance switch circuit 200 for switching and connecting the mutually different plural load impedances is provided in the antenna element 101. The load impedance switch circuit 200 is composed of a switch circuit 202, a capacitive impedance element 202, an inductive impedance element 203 and a control terminal 204. In this case, when a resonance frequency in the open circuit of the switch circuit 201 is defined as f_0 and the wavelength is defined as λ_0 , in the case that the switch circuit 201 selects the capacitive impedance element 202 for instance, the electric field phase of the edge part of the antenna element 101 is delayed and a resonance wavelength λ_1 becomes $>\lambda_0$. The resonance wavelength λ_1 is adjusted by the impedance value of the capacitive impedance element 202 and a loading position.

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